Optical properties of ...

S/185/63/008/001/014/024 D234/D308

vacancies. The latter cause an admixture photoconductivity in the long-wave part of the spectrum, characterized by long relaxation times. The interaction of excitons with different admixture centers is found to be selective. There are 3 figures.

ASSOCIATION: Kyyivs'kyy derzhuniversytet im. T. H. Shevchenka (Kiev State University im. T. H. Shevchenko)

SUBMITTED:

July 2, 1962

Card 2/2

GRITSENKO, YU.I.

AUTHORS:

S/185/63/008/001/014/024 D234/D308

GORBAN, I.S. C

Horban', I. S., Grytsenko, Yu. I. and Rud'ko, S. M.

Optical properties of admixture centers and the pho-TITLE:

toconductivity of cuprous oxide

Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 1, 1963, PERIODICAL:

96-100

The authors measured absorption spectra of admixtures, energy distribution in the photoluminescence spectrum and special dependences of photoconduction kinetics in Cu₂O specimens annealed

under various conditions. Results are given for three typical specimens annealed in oxygen at 1) 1.0 mm Hg, 1070°C, 2) 0.002 mm Hg, 700°C, 3) 0.0010 mm Hg, 800°C. Specimen no. 1 exhibits photoconductivity at the long-wave end of the band, no. 3 has maximum photoconductivity at 7200 Å, and no. 2 has intermediate properties. The results are discussed in detail. The intensity of admixture absorption is correlated with that of short-wave photoluminescence bands, which are probably associated with oxygen

Card 1/2

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900004-6

Use of the Hall current...

S/181/62/004/010/019/063 B108/B104

is possible to examine the processes taking place in the volume alone. Hall current measurements were made with cuprous oxide. It was possible thus to establish a relationship between the carrier mobility and the resistivity of the specimens (Fig. 4), which could not be done from measurements of the Hall emf. There are 4 figures and 1 table.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: May 18, 1962

Fig. 4. Hall mobility as a function of resistivity.

Legend: (1) mobility, determined from Hall current; (2) mobility, determined from Hall e.m.f.

Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900004-6

74115

S/181/62/004/010/019/063 B108/P104

文化 ラフォル

AUTHORS:

Dobrovol'skiy, V. N., and Gritsenko, Yu. I.

TITLE:

Use of the Hall current in investigating the scattering of

carriers in semiconductors

PERIODICAL:

Fizika tverdogo tela, v. 4, no. 10, 1962, 2760 - 2769

TEXT: A method of measuring the Hall current is proposed. In certain cases such a method can be more useful than measurement of the Hall emf as it allows the carrier mobility to be determined from the resistivity of the specimen. The Hall current can be written as the sum of a surface and a volume current. These two components can be determined individually by measuring the total Hall current and the conductivity as depending on the voltage applied to the specimen. From this dependence of the conductivity it is possible to find conditions under which no surface bending of the bands occurs. The surface conductivity is then zero, and the total Hall current equals its volume component. Such conditions can be realized surrounding the specimen with a protective ring. When this ring is also connected to the circuit it will act as the part carrying the surface Hall current, thus eliminating surface effects in the specimen. In this way it Card 1/2

GORBAN', I.S.; GRITSENKO, Yu.I.; RUD'KO, S.N. Photoluminescence and recombination of current carriers in cuprous oxide crystals. Fiz.tver.tela 3 no.7:2147-2153 Jl '61. (MIRA 14:8) 1. Kiyevskiy gosudarstvennyy universitet imeni T.G.Shevchenko. (Cuprous oxide crystals) (Photoelectricity)

PA - 2360

Production of Monocrystalline Samples of Copper-Oxide.

A method for the production of monocrystalline Cu₂O: was developed by the author and consists in following: The crystal structure of the copper-plates is coarsened before the oxidation by recrystallization. The early stage of oxidation is carried out at low oxidation-velocity, which is attained by the reduction of the temperature of the furnace and the partial pressure of oxygen. The electric-, thermoelectric-, and photoelectric properties of the monocrystalline and the coarse-crystalline Cu₂O-samples do not differ considerably.

Some conclusions: If the part of the admixture in the worked copper is less than 0.05 % it has no influence on the dimensions of the Cu₂O-grain. The crystal structure of the worked copper has a strong influence on the dimensions of the Cu₂O-grain. The production of the Cu₂O-grains on the occasion of the oxidation of coarse-grained copper differs from the grain-formation on the occasion of fine-grained copper (5 illustrations, 1 table, and 3 Russian references). State University KIYEV,

ASSOCIATION: PRESENTED BY:

SUBMITTED:

AVAILABLE:

Library of Congress.

Card 2/2

GRITSONKO, Ya. 1

AUTHOR: TITLE:

Production of monocrystalline Samples of Copper-Oxide.

(Polucheniye monokristallicheskikh obraztsov zakiski medi, Russian). Izvestiia Akad. Nauk. SSSR, Ser. Fiz., 1957, Vol 21, Nr 1,

PERIODICAL:

pp 153 - 157 (U.S.S.R.).

Received: 4 / 1957

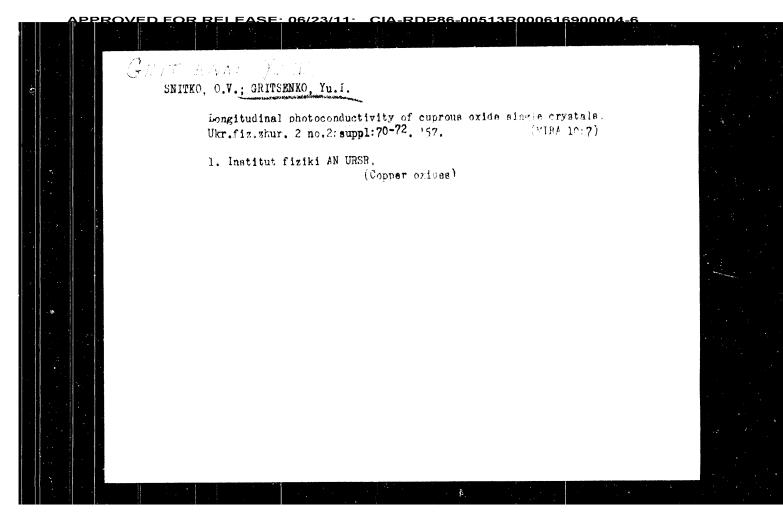
Reviewed: 5 / 1957

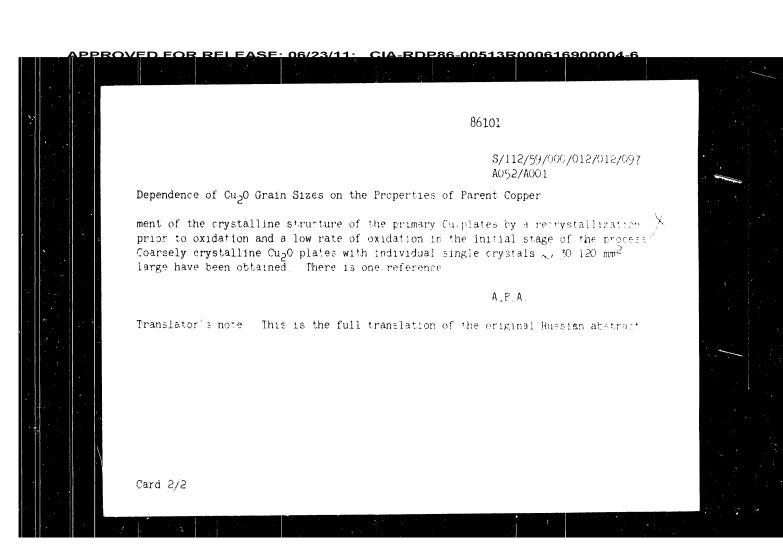
PA - 2360

ABSTRACT:

The present paper investigates the influence of the purity and crystal -structure of the worked up copper on the size of grain of the cuprous oxide. The cuprous oxide was produced by oxidation of copper-plates in an electric furnace in an air-atmosphere at ~ 10500. Plates with fine-crystalline and coarse-crystalline structure were used for the investigation of the influence of the crystal-structure of the worked copper. The working of the metal necessary for the production of coarse grains is discussed. In enclosure shows photographs of the surface of the recrystallized copper-plates and photographs of the surfaces of the cuprousoxide produced by oxidation of these copper-plates at 1050°. The cuprous-oxide with the coarsest crystals was produced from copper with the coarsest crystal-structure. If the copper oxidizes at from 850 to 880° always a Cu₂0-layer with grains is obtained which agree in shape and size with the copper-grains. This applies irrespective of the purification of the surface of the copper-plates.

Card 1/2





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3/112/50/000 / 12/012/097 A053.A001

Referativnyy zhurmal, Elektrotekhorka, 1905 St. 12, c. 12

AUTHOR

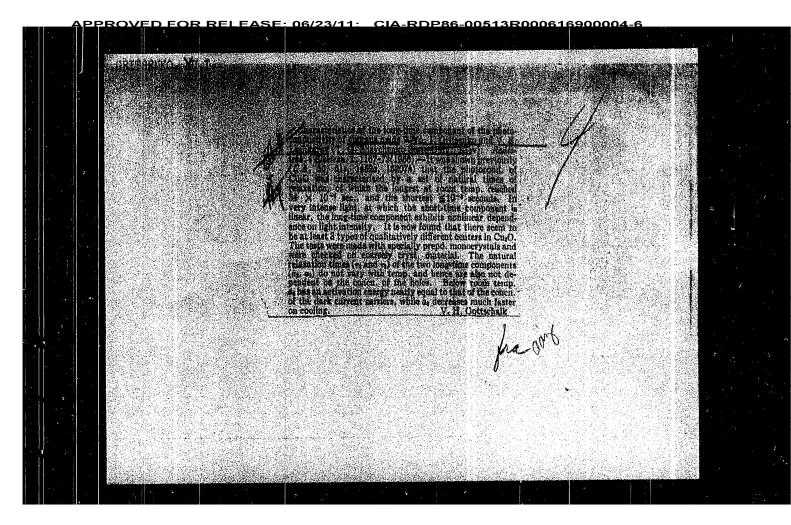
Oritherko, Toli.

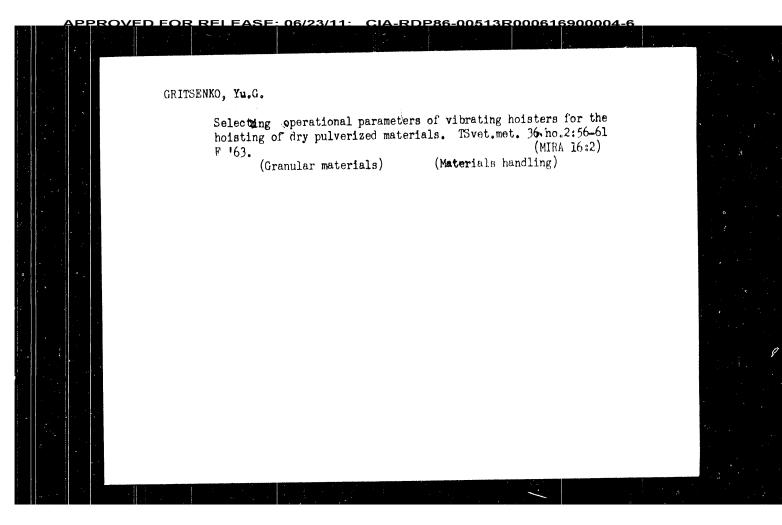
A
Dependence of CupO Grain Sizes in the Properties of Papers Copper TITLE

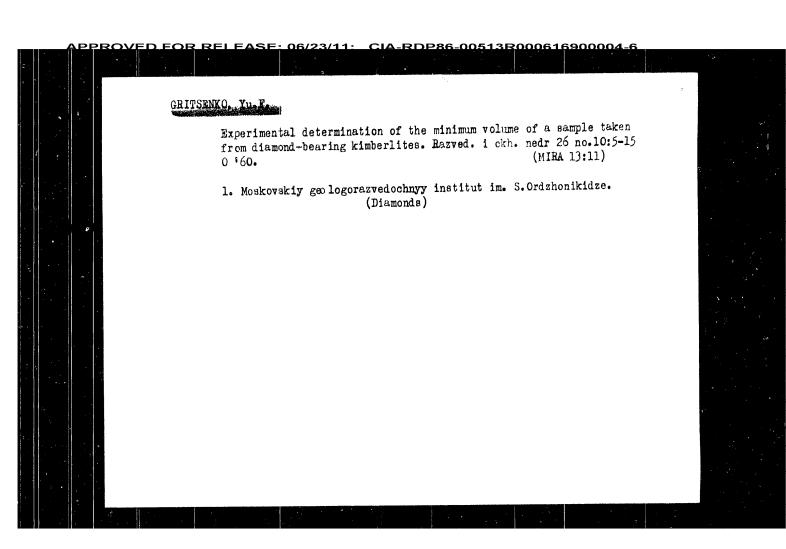
Nauk shehorichnykh Radiofiz fak Kylvs'k, un-tu, 1956, Kylv, 1957, FERICOICAL re 489_490 (Ukrainian)

The effect of the purity and crystalline structure of the parent TEXT Cu on grain sizes of cuprous oxide has been studied. Electrolytic Cu with 0 002-0.05% of admixtures has been used. No noticeable difference in CupO grain sizes has been revealed at oxidation of Cu with various percentages of admixtures. It has been established that the larger the grain of the parent Cu the larger are individual crystals of Cu_2O A considerable effect on Cu_2O grain sizes has the rate of formation of Cu20 in the initial stage of oxidation Methods of producing macrocrystalline Cu₂O from which individual Cu₂O single crystals can be easily singled out have been developed. Specific features of these methods are enlarge-

Card 1/2



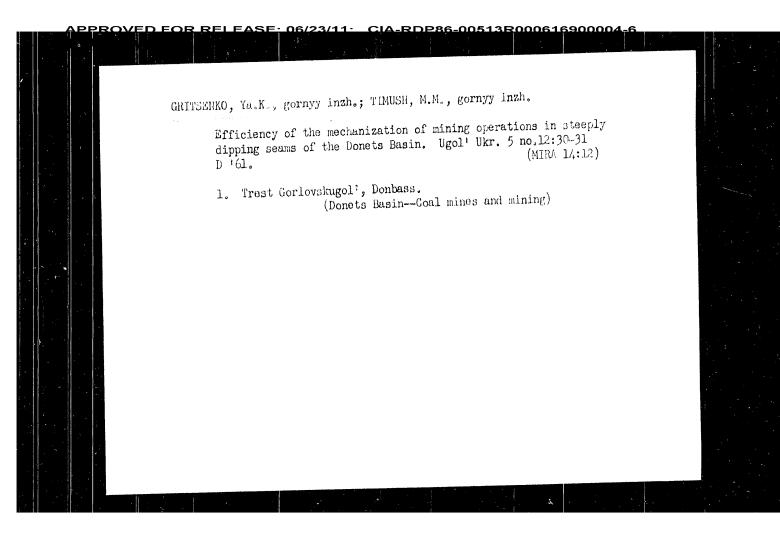


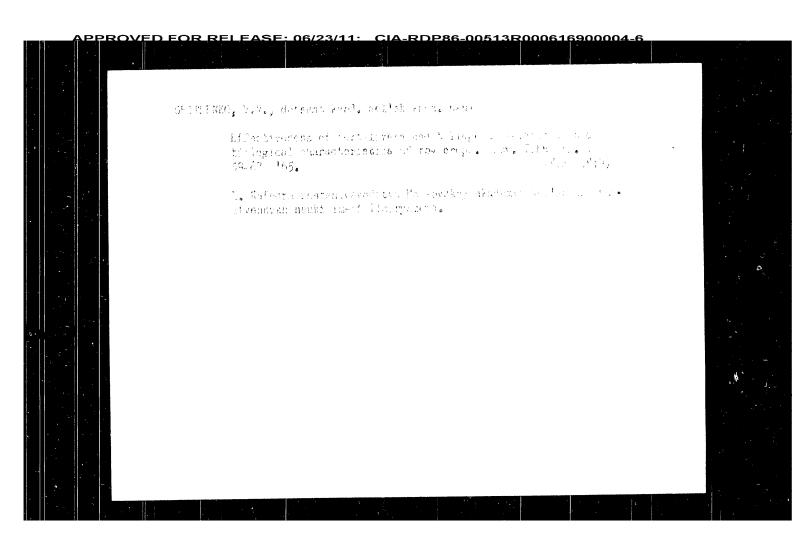


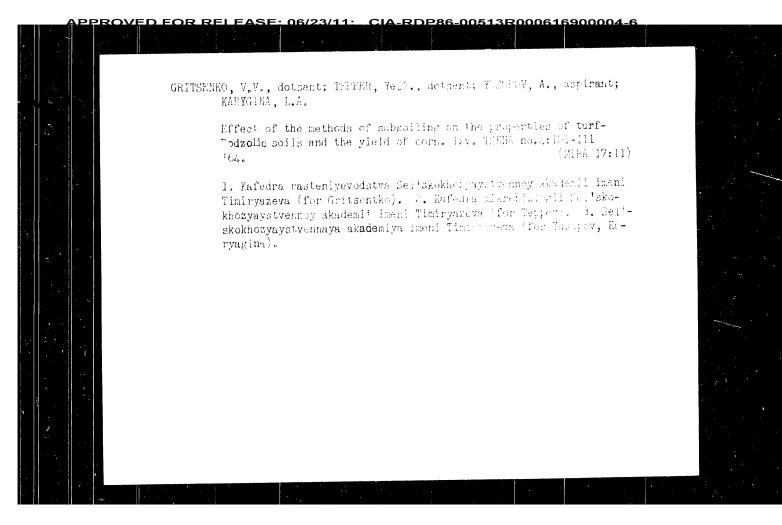
GRITSENKO, Ye.M.; GRIZODUBOV, N.I.; MIL'KOVA, Z.A.; TYAZHELOVA, G.F.;
STASEYEV, G.I.

Problem deserving attention. Sakh. prom. 37 no.10:28-33 0 '63.
(MIRA 16:12)

1. Ramonskaya gruppovaya laboratoriya (for Gritsenko, Grizodubov).
2. Voronezhskiy tekhnologicheskiy institut (for Mil'kova).
3. Ramonskiy sakharnyy zavod (for Tyazhelova, Staseyev).







GRITSENKO, V.V., kand. zel'akokhoz. nzuk

Chlistwation of durum wheat. Izv. TSKhA no.5:55.56

(Wheat)

GRITSENKO, J.J., kand. sel skokhozyaystvennykh nauk,

Solecting grassland mixtures for the non-Chernozem zone [with summary in English], Izv. TSKhA no.2:69-94 58. (MIRA 11:6)

(Pastures and meadows) (Rotation of crops)

GRITSENKO, V.V., kand. sel'skokhozyaystvennykh nauk. Time and method for turning over perennial grass fields in the non-Chernozem belt. Zemeledelie 6 no.7:29-33 J1 '58. (MIRA 11:6) (Tillage)

J-3

GRITSENKO, V.V.

dSSR/Soil Science - Mineral Fertilizers.

: Ref Zhur - Biol., No 2, 1958, 5772

Author

Critsenko, V.V.

Inst : TSKhA

Ats Jur

: Fertilizer Effectiveness in the Non-Chernozem Belt Title

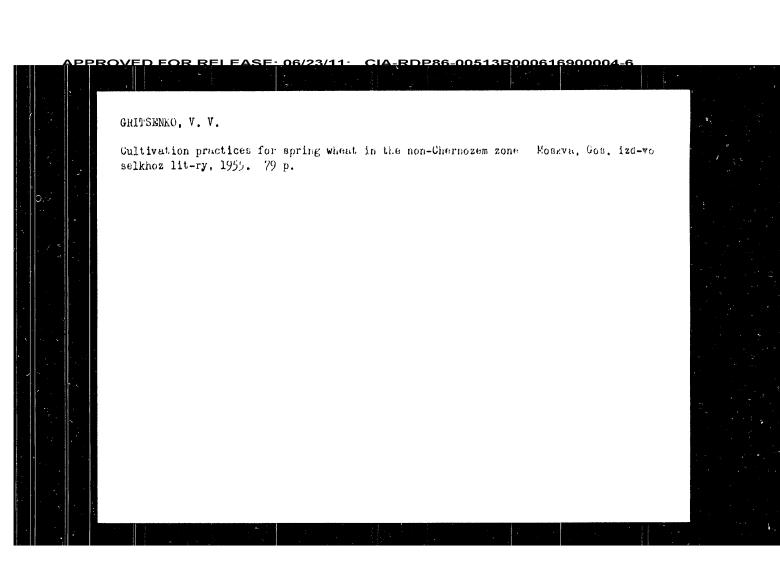
Orig Pub : Udobreniye i urozhay, 1956, No 10, 3-8.

Abstract : On the field husbandry experimental station of TSKnA ap-

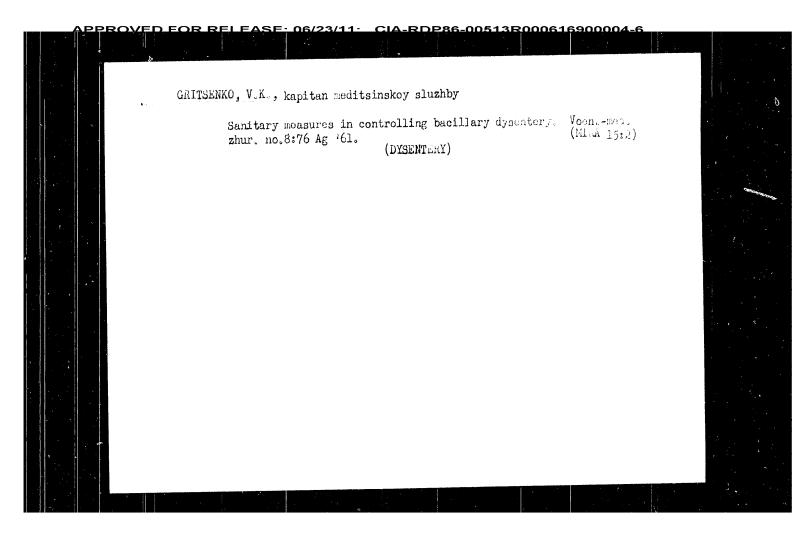
plication of N $_{45}$ P $_{67}$ K $_{45}$ gave increases in wheat yields of 5 centners/hectare in 1952, 1.3 centners/hectare in 1953, and 1.1 centners/hectare in 1954. In order to acquire firm yield increases over the years it is recommended that irrigation be used, that the plowing be done at a lower level, and that organic and mineral fertili-

zers be applied simultaneously.

Card 1/1



GRITSENKO, V.V. Wheat Advance of hard wheat into the non-chernozem belt. Sov.agron. 10 no. 10, 1952. Monthly List of Russian Accessions, Library of Congress, December 1952 1953, Unclassified.



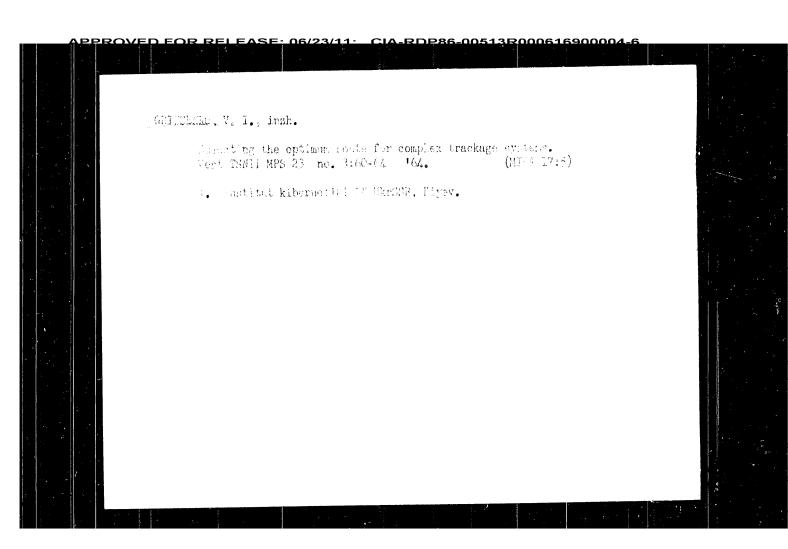
GRITSENKO, V.I., inzh.; RIO, B. del, kend.tekhn.nauk Over-all automation of the dispatching control of railroad transportation at metallurgical plants. Mekh.i avtom.proizv. 18 (MIRA 17:4) no.3:40-43 Mr 164.

STEFANOV, N.Y., kand. tekhn.nauk, prof.; OLESHKO, Grigoriy Ivanovich, kand. tekhn.nauk, dots.; DEL RIO, Bernardo, kanz. tekkn.nauk, dots.; GRITERKO, V.I., inzh.; KOSTENKO, O.A., inzh.; PARKHOMENKO, N.V., inzh.; KULESHON, V.M., inzh.; KARd. N.Ye., kand. tekhn. nauk, dots.; LESHGHINSKIY, A.A., kand. tekhn. nauk, dots.; DNIATERIDZE, A.M., doktor tekhn. nauk, prof.; ZLATKOVSKIY, V.N., kand. tekhn. nauk, dots.; DNITRIYEV, V.K., kand. tekhn. nauk, dots.; SHIPULIN, A.F., inzh.; SHISHLYKOY, Ye.S., red.

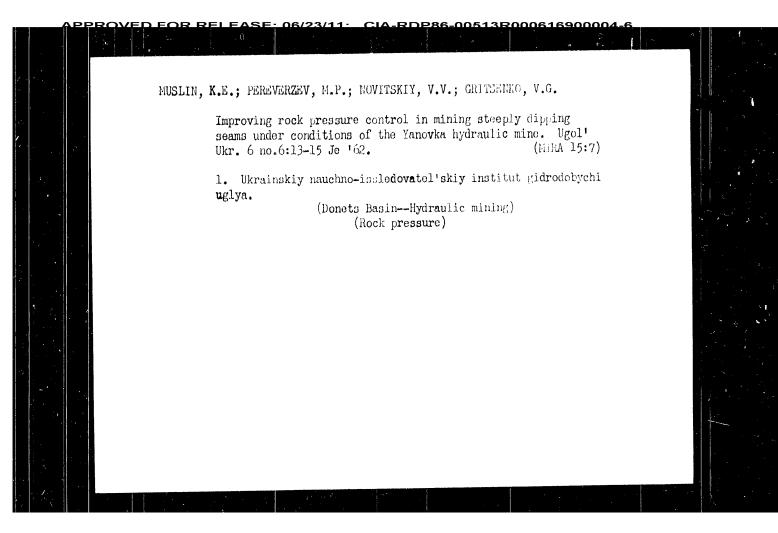
[Automation of the operation of hump yards using electronic computers] Avtomatizatsiia sortirovochnykh stantsii (s primeneniem vychislitellnykh mashin. Moskva, Transport, 1964.

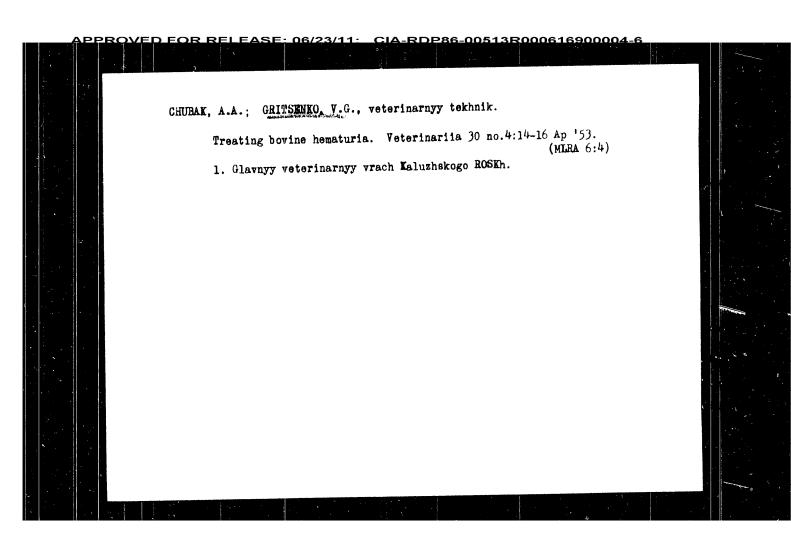
[175 p. (NIRA 17:6)

CIA-RDP86-00513R000616900004

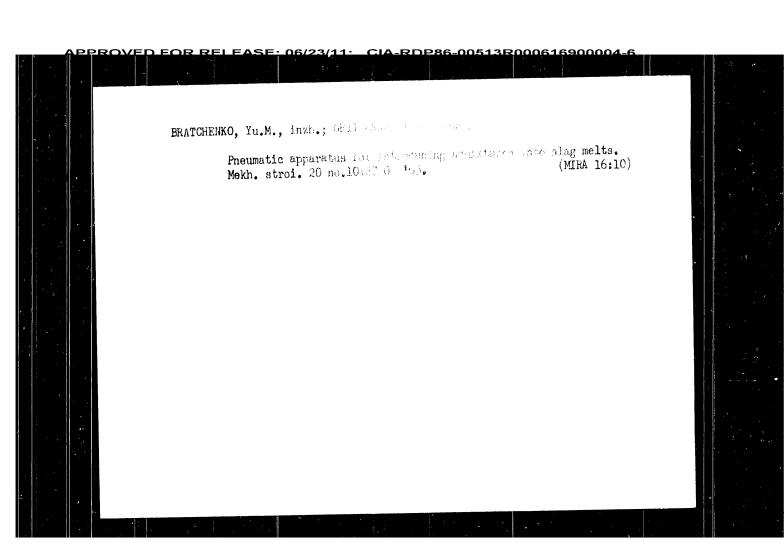


PEREVERZEV, M.P., inzh.; NOVITSKIY, V.V., inzh.; GRITSENKO, V.G., inzh. Rock pressure manifestations in the development of steeply dipping seams in the "Yanovka" hydraulic mine. Ugol'.prom. (MINA 15:8) no.4:35-38 Jl-Ag 162. 1. Ukrainskiy nauchno-issledovatel'skiy institut gidrodobychi uglya. (Rock pressure) (Donets Basin-Hydraulic mining)





BRETCHLING, Yo.K.; TUSHCIRO, H.K.; GELL MING, 1. Departury finial Yushnoon name in-flux observe the stoler attitute programmers attailed to the stoler than a

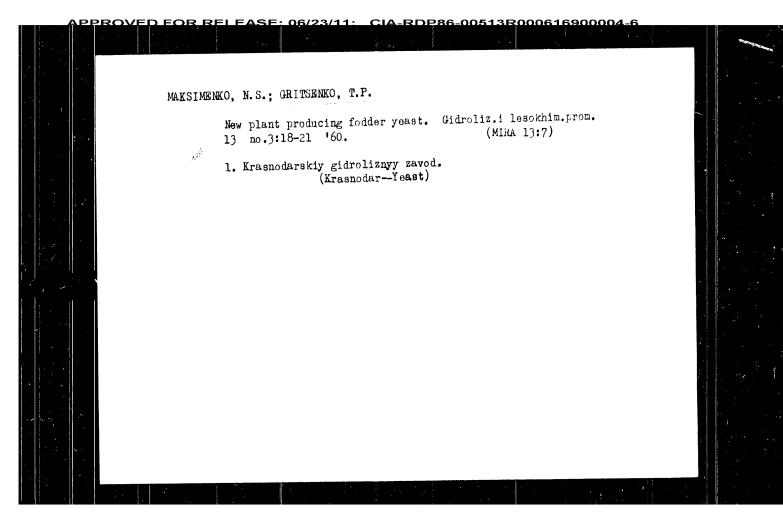


KOLESHIKOVA, Lyudmila, yunatka; GRITLERKO, Valya, yunatka; VOLKOVA,
Lyudmila, yunatka; OBOTINA, Lyudmila, yunatka; VOLKOVA,
Lyudmila, yunatka; OBOTINA, Lyudmila, yunatka; VOLKOVA,

"Herald of the young naturalist." IUn.mat. no.4:20-21 Ap '62.

l. Man'kovskaya srednyaya shkola Chertkovskogo royona
(for Kolesnikova). 2. Yegorlykokaya shkola, Yegorlykokiy
rayon (for Kolesnikova). 3. Kagal'nitskaya &-letuya shkola
Kagal'nitskogo rayona (for Volkova). 4. Gigantovakaya srednyaya
shkola-internat No.2 Sal'skogo rayona (for Obotina).

(Nature study)



EWT(m)/EWP(j)/T L 15336-66 ACC NR: AF6000982 SOURCE CODE: UR/0286/65/000/022/0059/0059 AUTHORS: Gritsenko, T. M.; Kartsovnik, V. I.; Simenido, A. V. ORG: none TITLE: A method for obtaining polyoxyalkylene polyols. Class 39, No. 176405 announced by Vladimir Scientific Research Institute for Synthetic Resins (Vladimirskiy nauchno-issledovatel'skiy institut sinteticheskikh smol)7 Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 59 TOPIC TAGS: polymer, polymerization, catalytic polymerization, quaternary amine, resin catalyst, ammonium ABSTRACT: This Author Certificate presents a method for obtaining polyoxyalkylene polyols by the polymerization of alkylene oxides in a medium of hydroxyl-containing compounds at a temperature of 50-800 in the presence of quaternary ammonium base catalysts. To increase the molecular weight of the polymers, the alcoholate or the hydroxide of tetramethyl ammonium is used as the quaternary ammonium base catalyst. SUB CODE: 11/ SUBM DATE: 01Jul63 UDC: 678.644'142'4

BENTORD, K.[Bentord, C.H.]; BAnd, U.[Berd, W.G.]; DZHEKKINS, A.

[Jonkins A.D.]; G. Off., I.[Unyon, 1.F.]; GRITSERKO, T.E.,

kand.khir. rosk, [translator]; ELLEUTHSERWA, R.I., kand.
thin. rouk, [translator]; HAMPERIKOV, A.E., kand. khir.
nauk [translator]; FALEISKIY, Yu.E., kand. khir. nauk, red.;
KHODETSKAYA, Z.F., red., FRIDANTSEWA, S.V., tekhn. red.

[Kinetics of viryl jolymerization by radical mechanisms] Kinetike radikal noi polimerization by radical mechanisms] Kinetike radikal noi polimerization by radical mechanisms [kinetike radikal noi polimerization in the Translator of the English.

[Kinetics of viryl jolymerization in the Translator of the English.

(Mina 15:3)

(Viryl compound polymers) (Radicals (Chomistry))

Polymerization of Acrylonitrile in the Presence S/190/60/002/007/017/017 of a Ziegler Catalyst

formamide at 25°C was 0.3. The application of this method for other polar vinyl monomers may be possible. There are 3 references: 2 Soviet and 1 US.

SUBNITTED: April 16, 1960

Card 2/2

87033

15.8105

S/190/60/002/007/017/017 B020/B052

AUTHORS:

Gritsenko, T. M., Yakubovich, V. S., Kartsovník, V. I.

TITLE:

Polymerization of Acrylonitrile in the Presence of a

Ziegler Catalyst

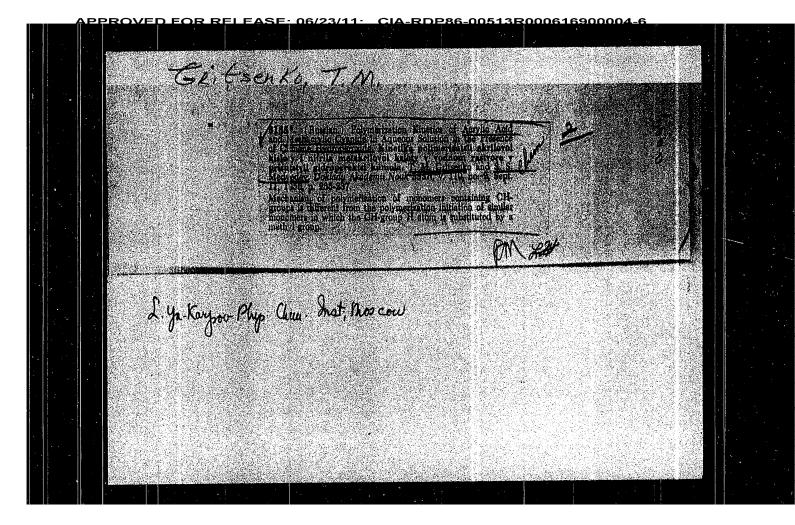
PERIODICAL:

Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 7,

p. 1122

TEXT: In the form of a letter to the editor, the authors report on their successful production of polyacrylonitrile on a Ziegler catalyst with a reduced sorption of the monomer on the catalyst by additions competing with the monomer. Acctonitrile was used as such addition. The experiments took place in the atmosphere of an inert gas at 20°C. For an example, the composition of the reaction mixture in one test was the following: 25 g of n-octane (solvent), 12 g of acrylonitrile, 0.05 g of acetonitrile, TiCl₄, and tributyl aluminum in a molar ratio of 1: 1 as catalyst in an amount of 1% by weight of the reaction mixture. After 25 hours the polymer yield was 6%. The intrinsic viscosity of the polymer solution in dimethyl

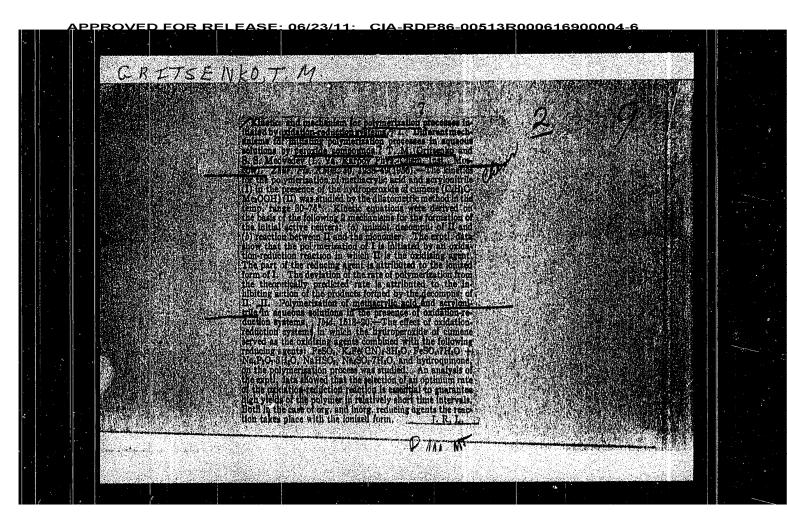
Card 1/2

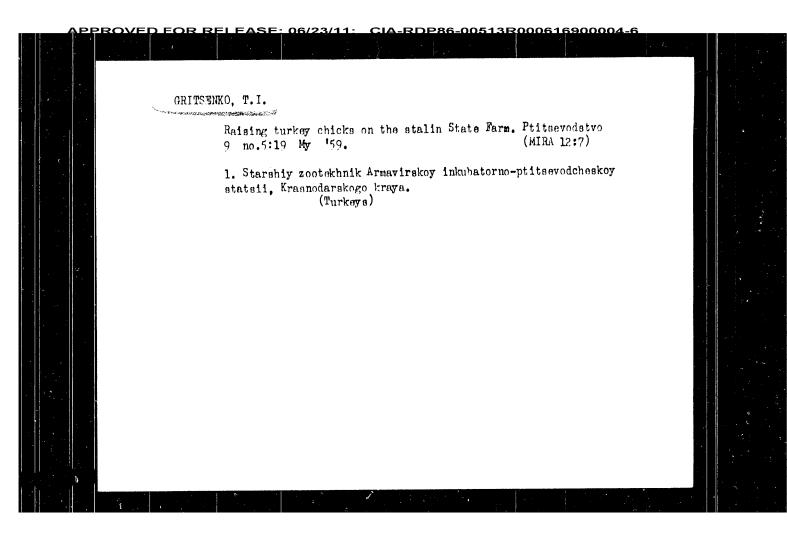


GRITSENKO, T.M.: MEDVEDEV, S.S.

Kinetics and mechanism of polymerization initiated by redox systems. Part 2. Polymerization in aqueous solution of methacrylic acid and acrylonitrile in the presence of certain redox systems [with English summary in insert]. Zbur.fiz.khim. 30 no.7:1513-1520 J1 '56.

1. Piziko-khimicheskiy institut imeni L.Ya.Karpova, Moskwa (Methacrylic acid) (Acrylonitrile) (Polymerization)





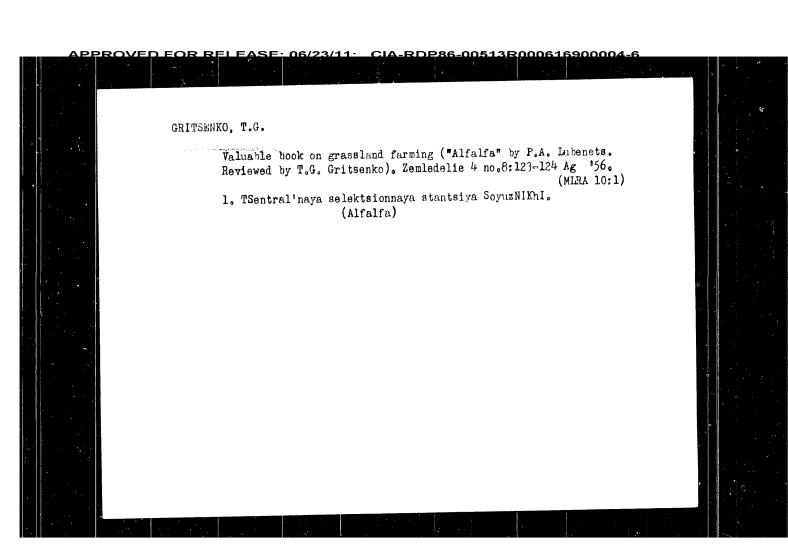
Galfasen, T.G., kend.sel'skokhoz.rauk, red.; KEMER, A.P., indet.rad.

[Perennial grasses; collection of scientific papers | Kacyo-lettic tray; abornic manchnyth rabot. Pod red. T.G.Gritmanke.

Toshkont. Uzbekskala Akad.sel'khoz.nauk, 1959. 125 p.

1. Tashkont. Vsesoyuznyy neuchno-issledovatel'skiy institut khlopkovodstva.

(Grasses) (Legures)



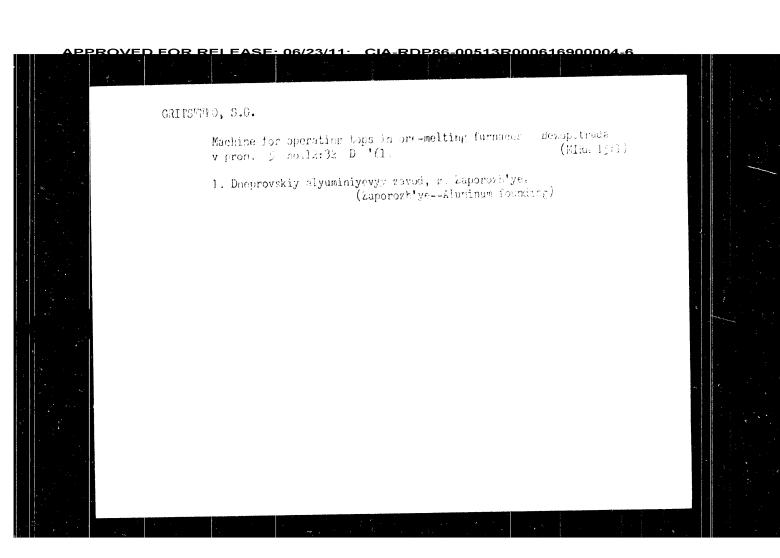
GRITSENKO, T. G. How to attain high yields of hay and perennial grass seed Tashkent, Akademiia nauk UzSSR, 1954. 21 p. (Bibliotechka kolkhoznika) The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions amnounces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscov, No. 22-40, 20 Feb - 3 Apr. 1954)

Name
Title of Work
Nominated by

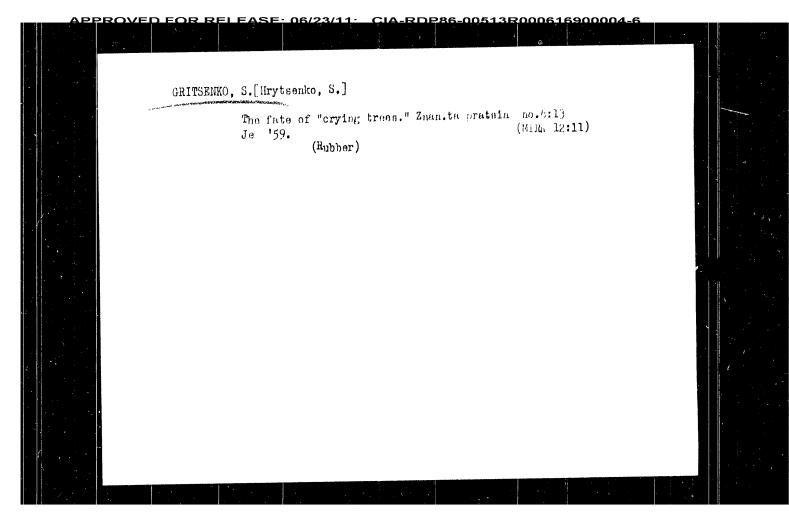
Detasein, 1. 2. "Contain recorded"
Textbook
Textbook
SST

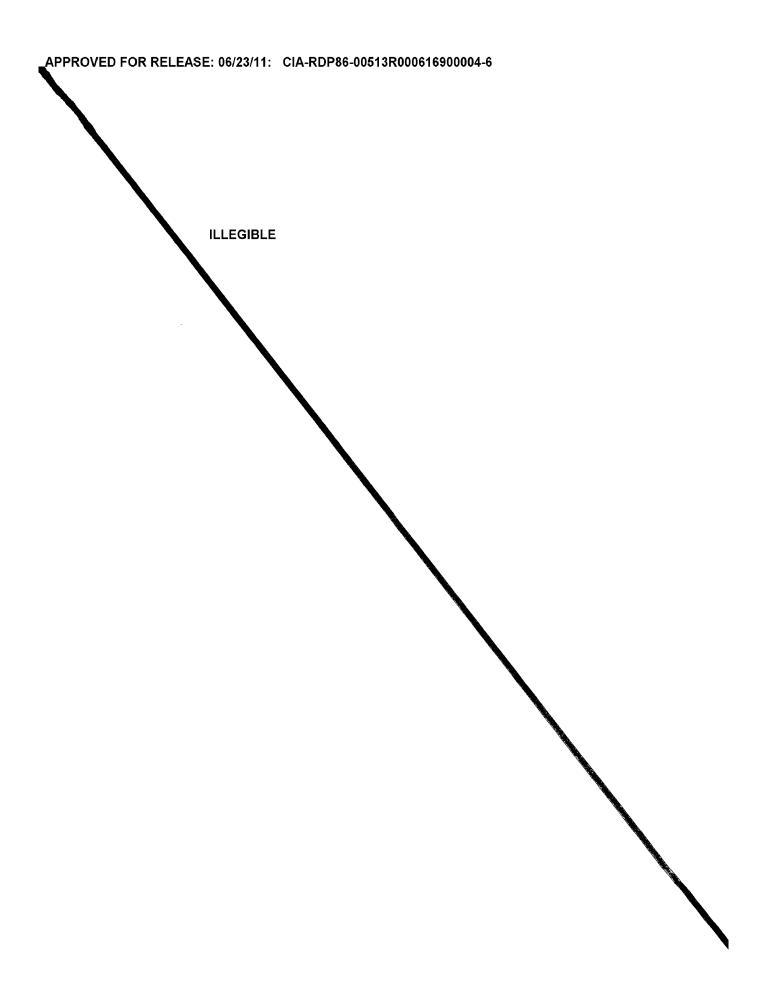
SO: W-30604, 7 July 1954

ominatio, a.G. impecs - leviet Centrul adio Approving the scientific cultivation of personal agrees. In the equilibrate Central win. Millogreyaltre No. 6, 1951. Monthly Elst of Radolar Accountable, Elbray of Casaria, Fair St. Cart.

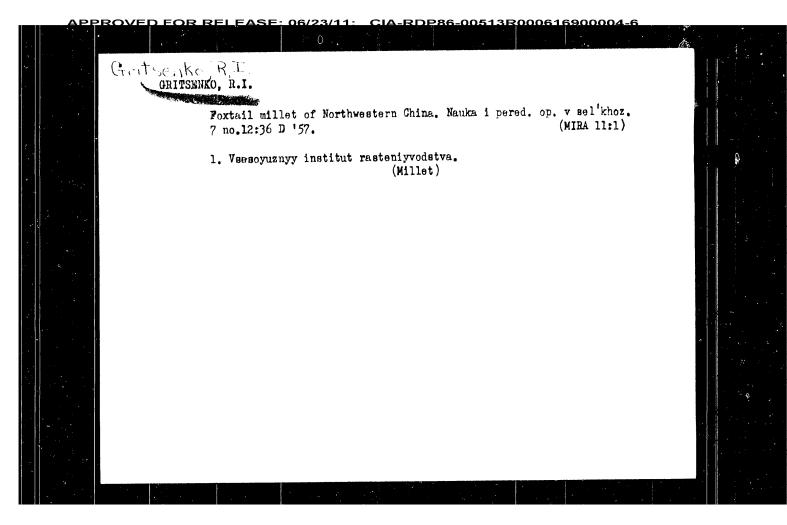


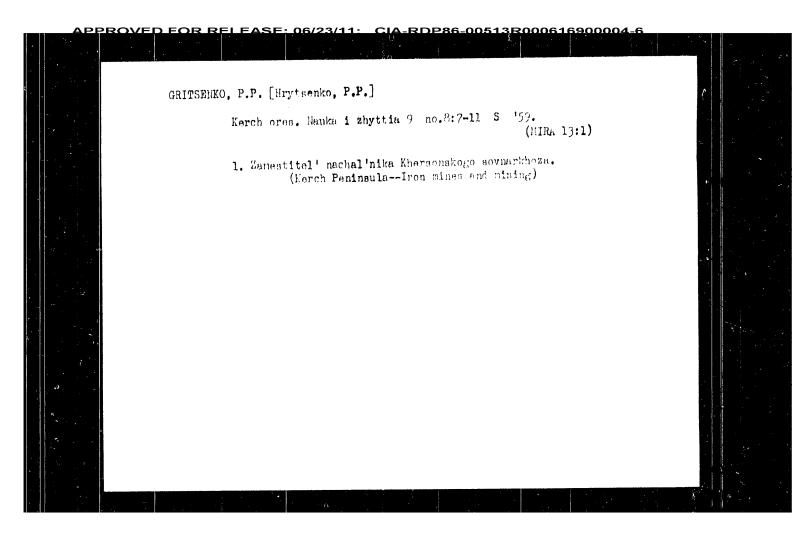
GRITSENKO, S.D. [deceased] Chservations of occultations of stars by the moon in 1963 in Charkov. Biul. Inst. teor. astron. 10 no.1:90 165. (MIRA 18:12) 1. Khar kovakaya astronomicheskaya observatoriya.

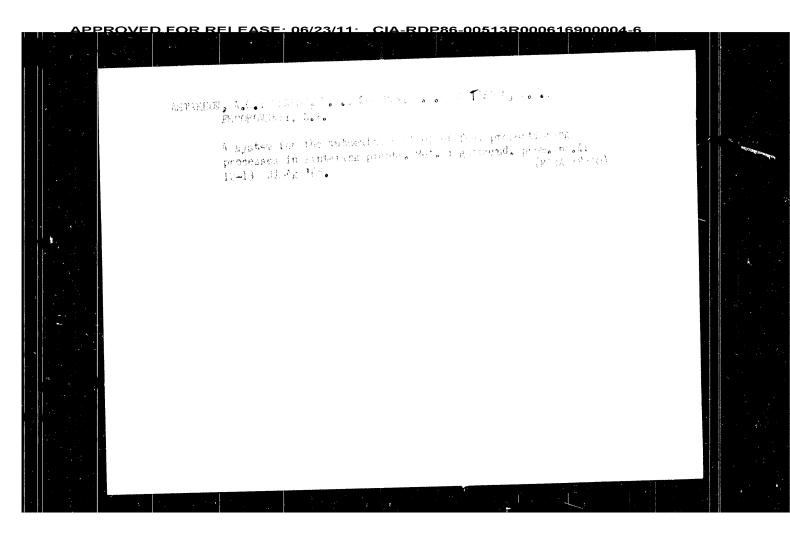


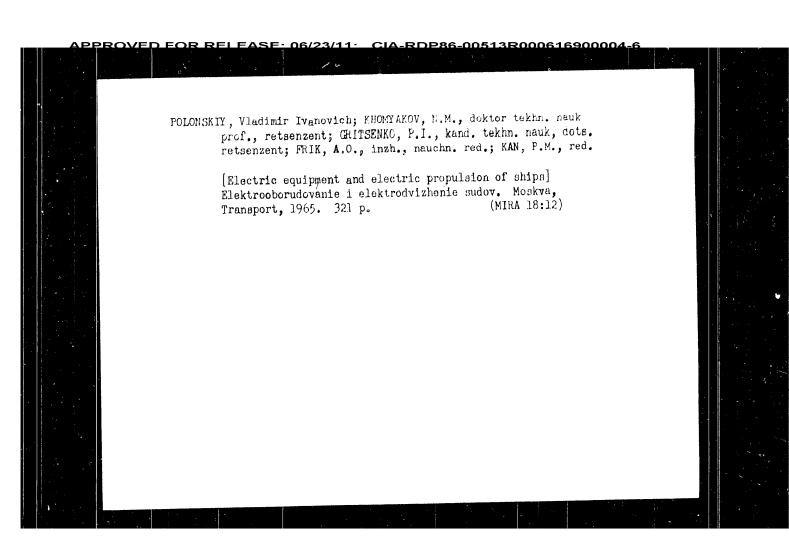


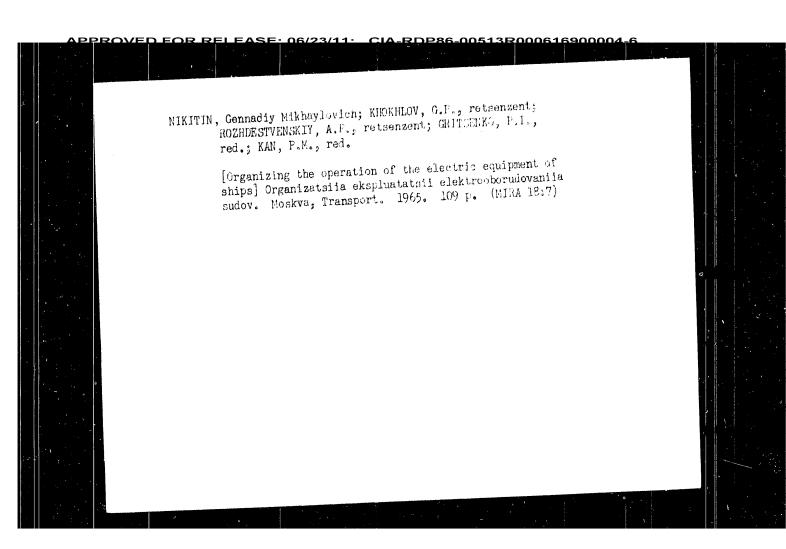
GRITOZERO, S. I. Cond Agr ed -- (diss) "Agrobatemical description of the fortail millets of China and the adjacent countries." Len, 1868. 16 pp (All-Union Order of Lenin Acad Agr dei in V. I. Lenin. All-Union End of Plant Cultivation), 100 copies (KL, 11-58, 119)

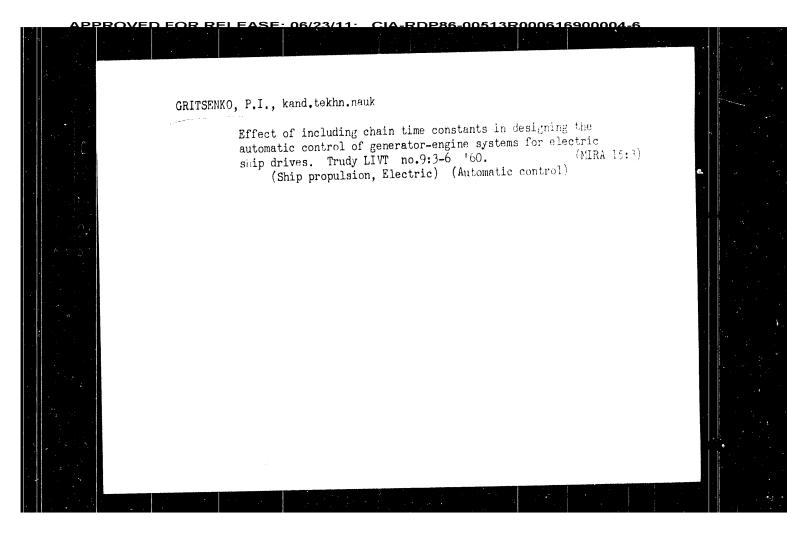


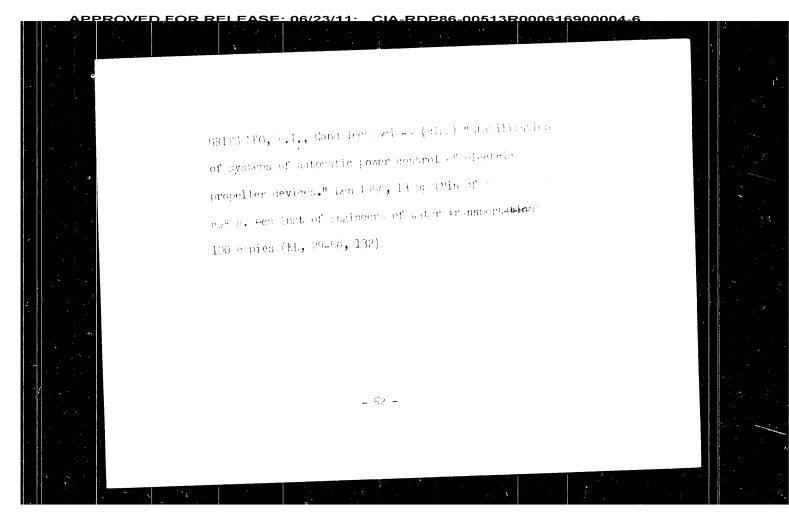


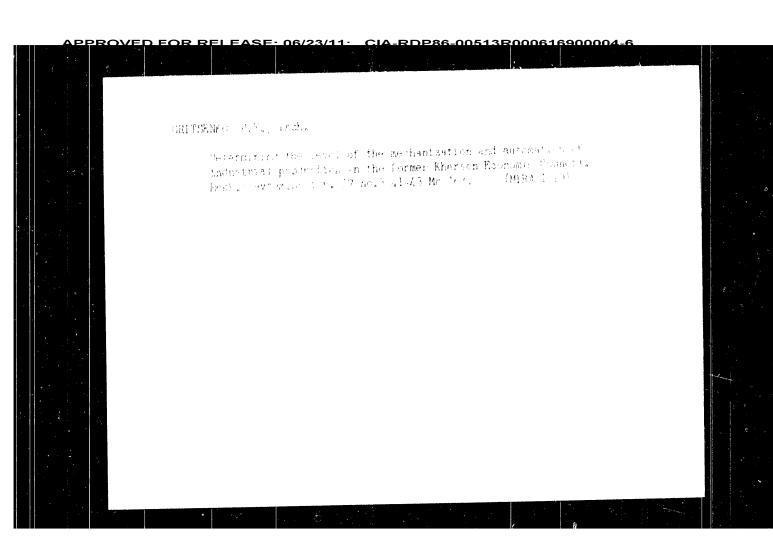


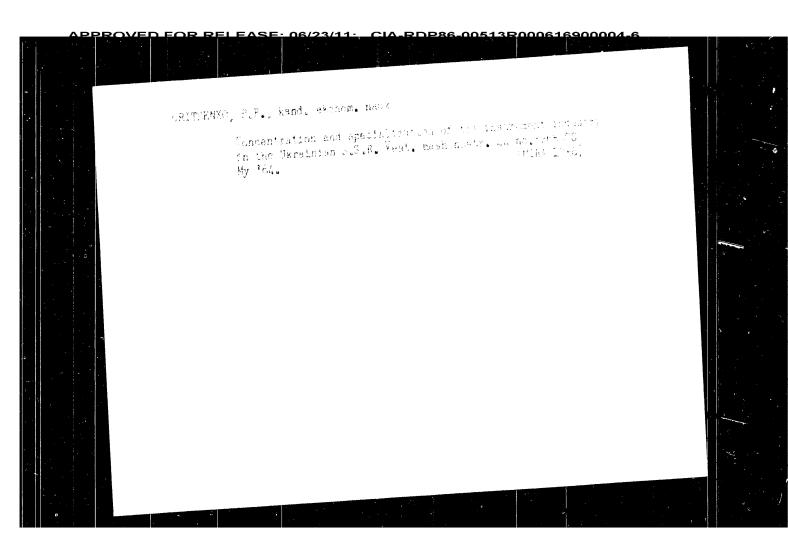


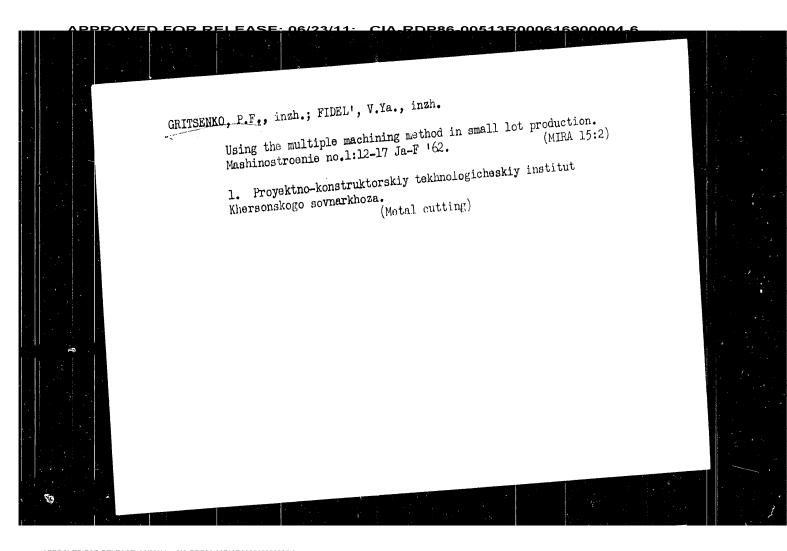


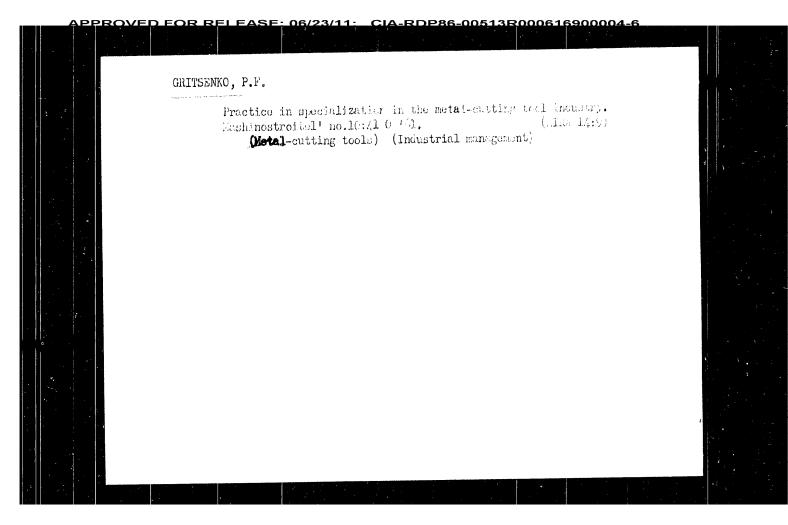


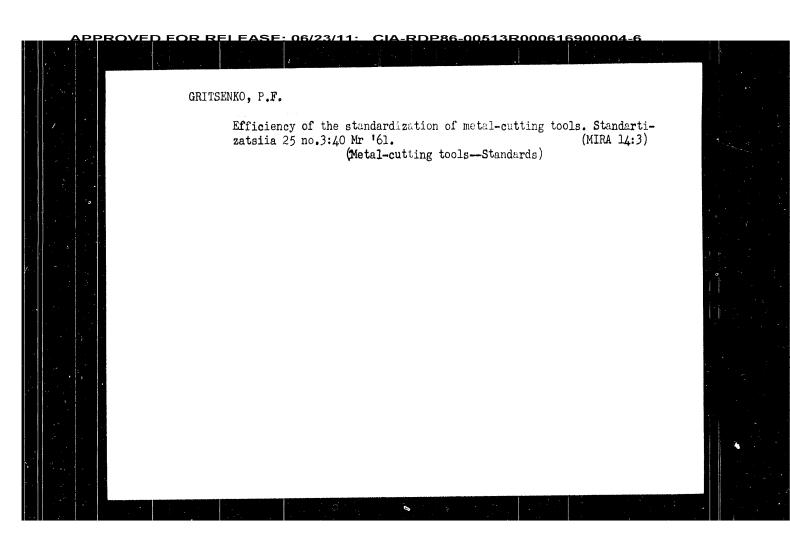


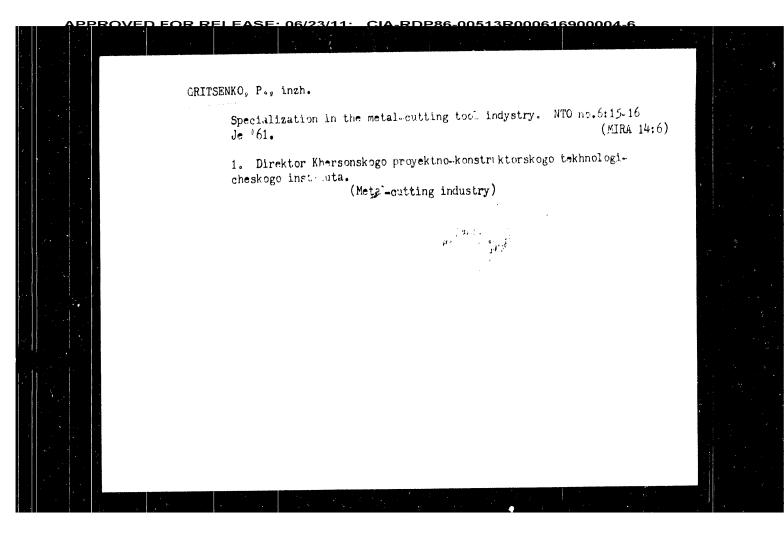


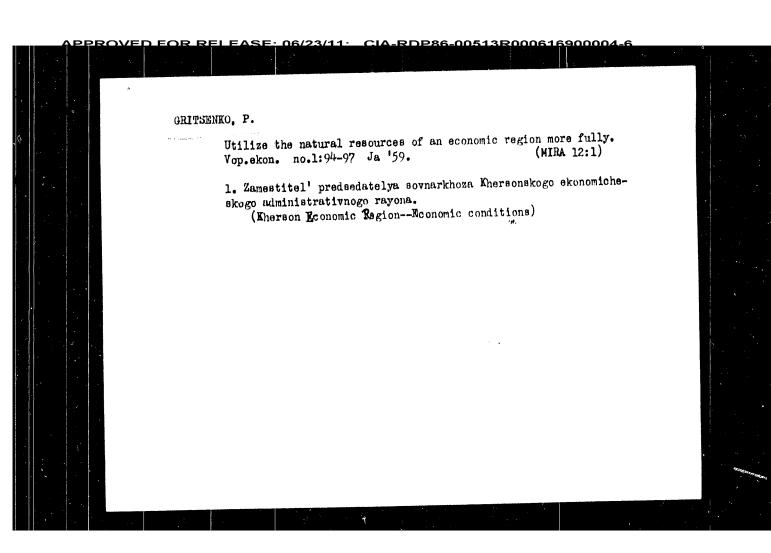


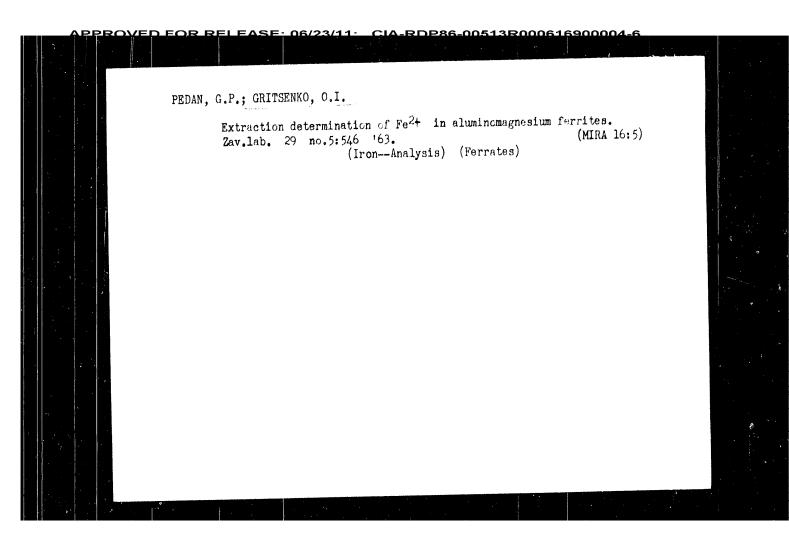


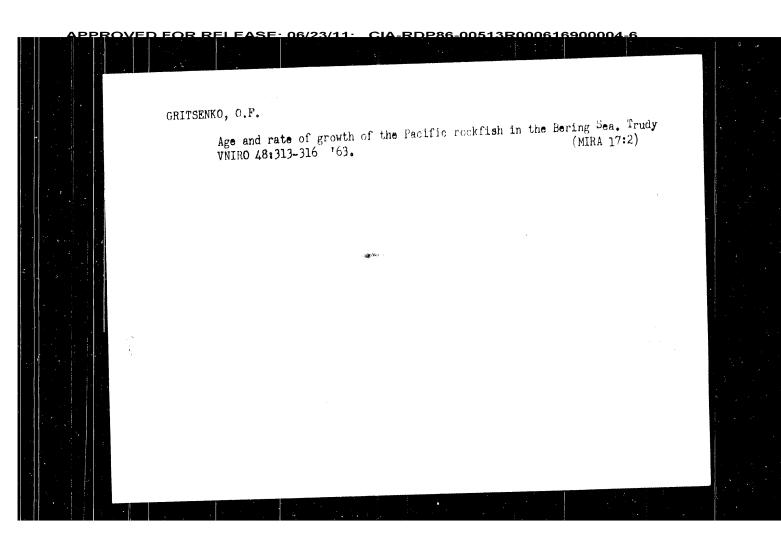


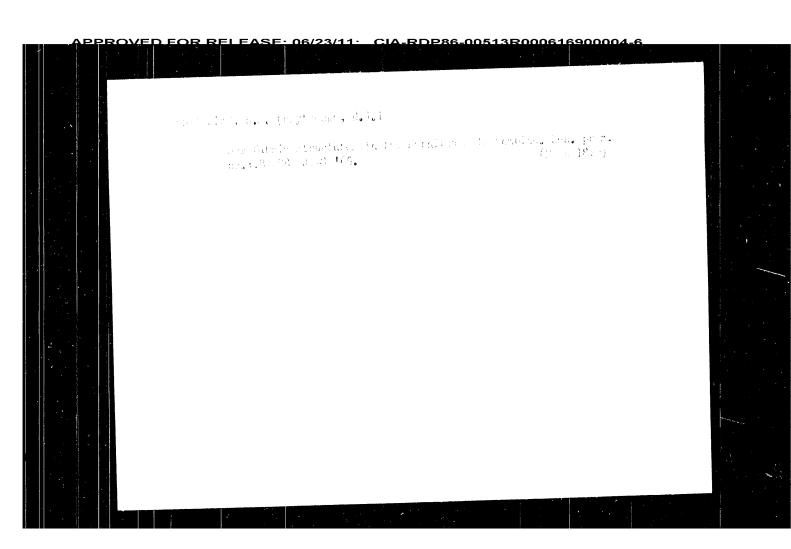


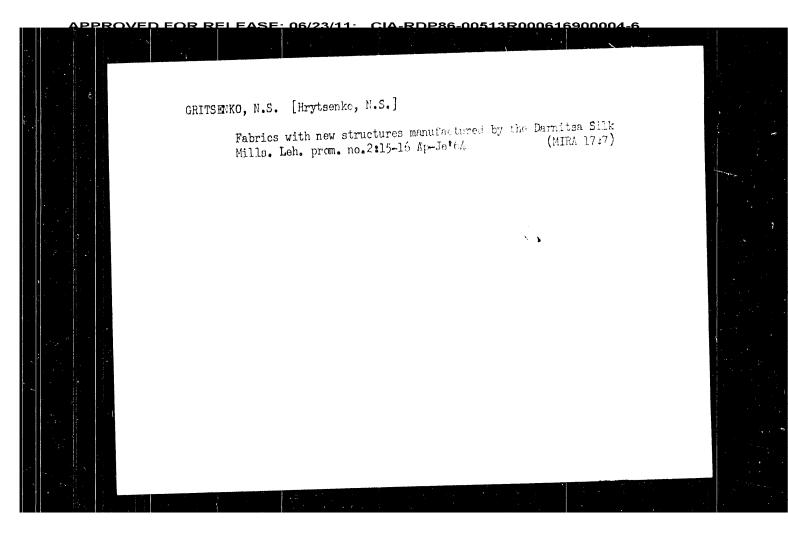


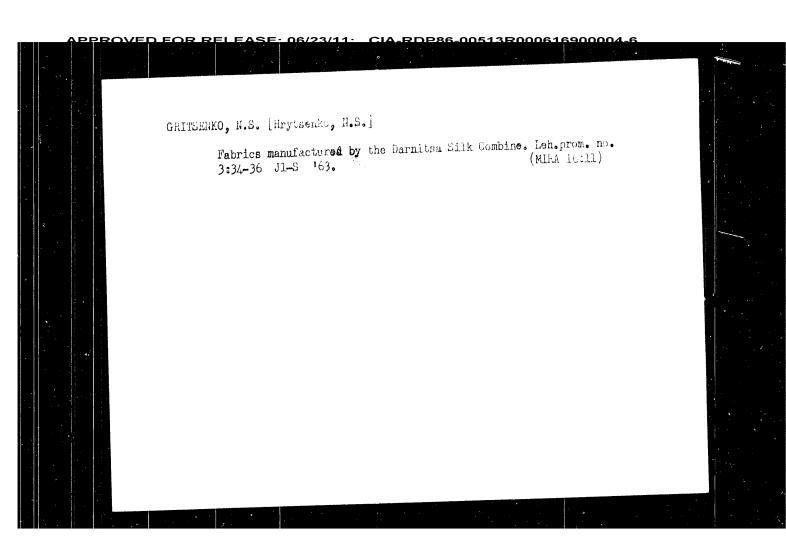


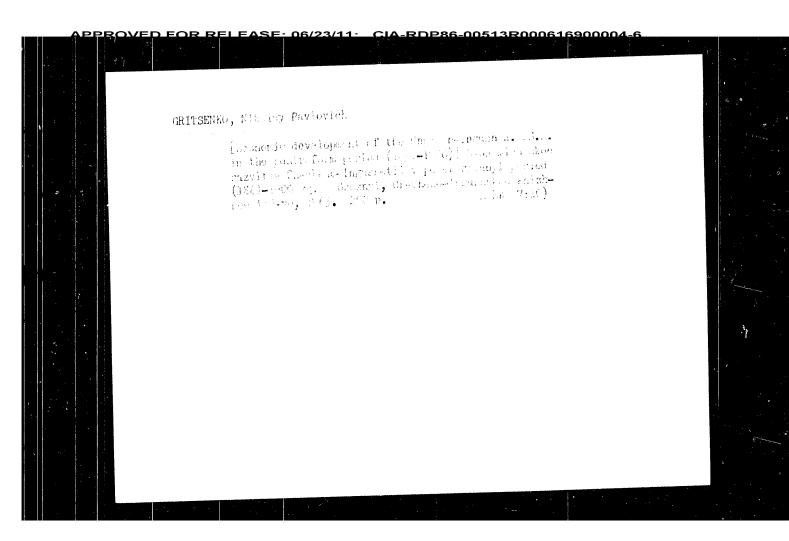












GRITSENKO, N.N. (MIKA 16:5) Inspiring outlooks. NTO 5 no.1:2-4 Ja 163. 1. Zamestitel predsedatelya Vsesoyuznogo soveta nauchno-tekhnicheskikh obsidenstv. (Russia---Economic policy)

ZOTOV, V.P.; SILUYANOV, V.G.; GUGINA, Ye.F.; AUERMAN, L.Ya.; ALEKHINA, M.S.;

BEZZIBOV, A.D.; BODROV, V.A.; BUDNYY, A.V.; BURRSYV, Ye.L.;

WAYNSHTEYN, V.O.; GANRILOV, A.N.; GORBATOV, V.M.; GRITSPING, N.N.;

VAYNSHTEYN, V.D.; DAVREMOV, K.P.; ZHURALVEVA, S.S.; ZAGUFSKIN,

DOLUUSHEVA, L.I.; YEDYGEMOV, K.P.; LIUNSKIY, N.A.; RILINAKNOVA,

Ya.A.; IVAIN, A.P.; IZOTOV, A.K.; ILINSKIY, N.A.; GORBANOV,

A.M.; KARPENNO, A.K.; LYSOGGR, P.M.; LUPISH, A.T.; OLEYNKOV, V.V.;

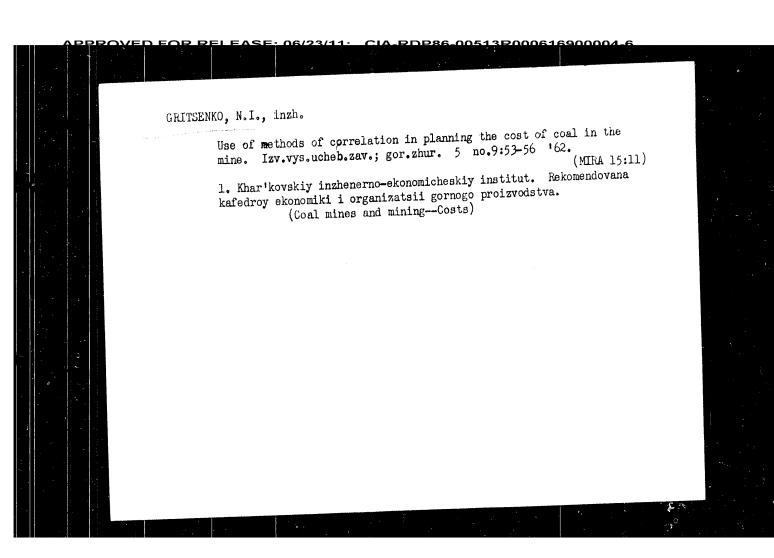
A.M.; KARPENNO, A.K.; LYSOGGR, P.M.; PYATIBRATOV, M.A.; ROMANOV,

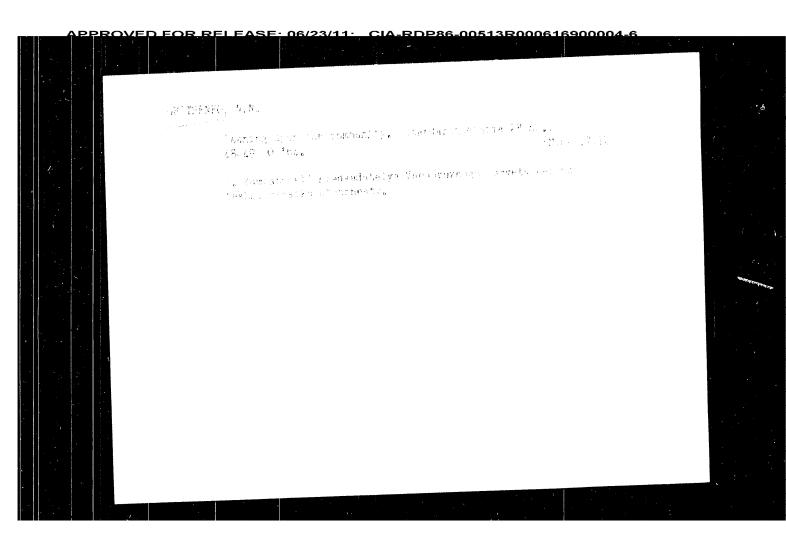
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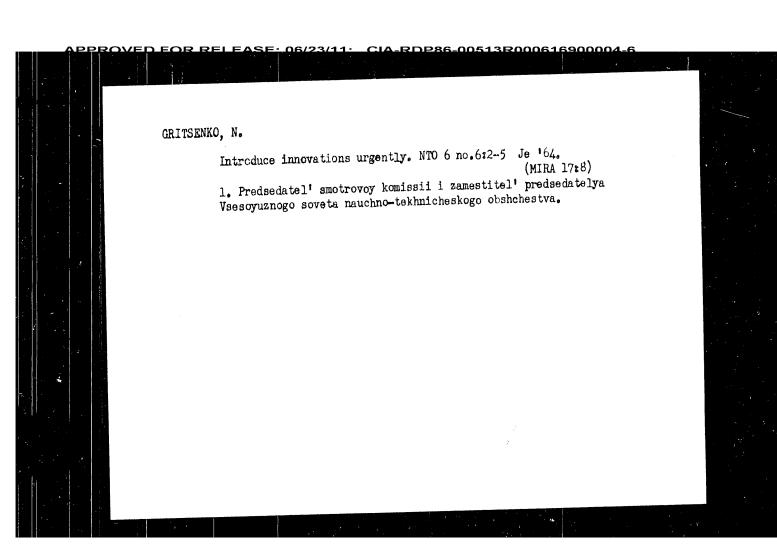
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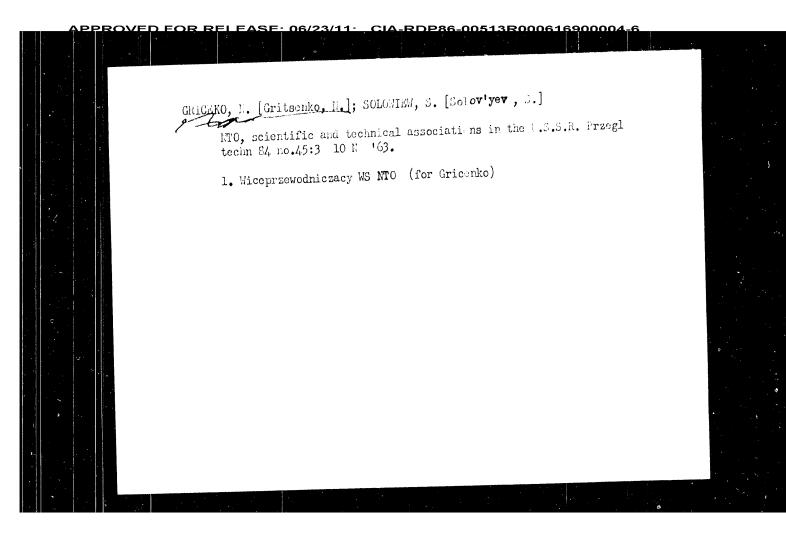
G.IA.Ivanov; obituary. NTO 4 no.10:39 O '62. (MIRA 15:9)

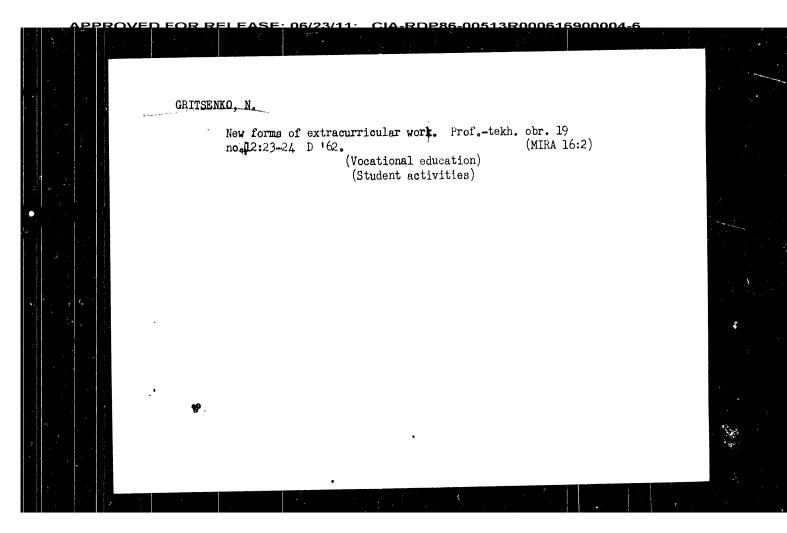
(Ivanov, Georgii IAkovlevich, 1897-1962)



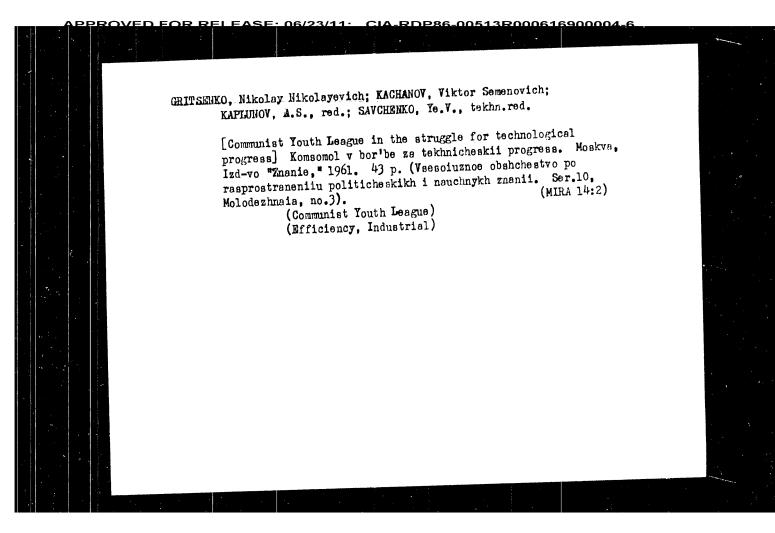


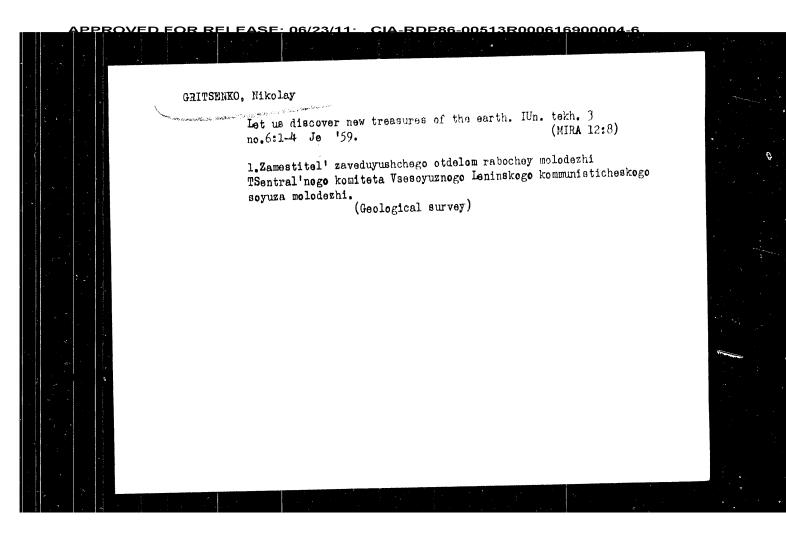






GRITSENKO, N. Friends meet in Prague. NTO 4 no.8:50-53 Ag '62. (MIRA 15:8) 1. Zamestitel' predsedatelya Vsesoyuznogo soveta nauchno-tekhnicheskikh obshchestv. (Technical societies)
(Russia--Relations (General) with foreign countries)





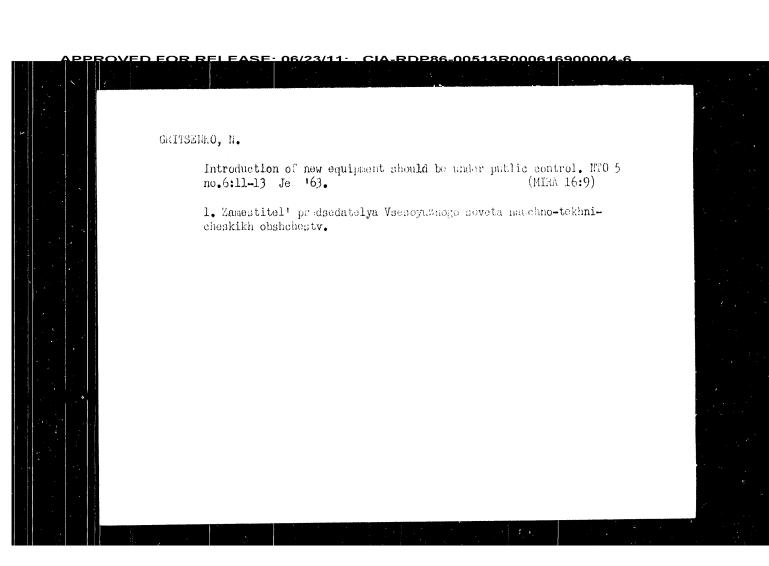
AUTHOR: Srituenko, N. Sov-27-58-8-15/27
TITLE: Good Recreation for Students (Ehoroshiy otdykh uchashchikhsya)

PEKIODICAL: Professional'no-tekhnisheskoye obrazovaniye, 1958, Nr 8, pp 25-26 (USSR)

ABSTRACT: Camping and traveling during the summer holidays is becoming popular among students. Students gather during their vacations in special camps, where they engage in sports and other recreational activities.

1. Sports--USSR

Card 1/1



ACC NR: AT7005069
Eastern SSSR. Those relationships served to set up the regression equations which are tabulated. From these equations the average monthly earth's surface temperature may be prognosticated, Orig. art. has: 4 tables and 1 equation.

SUB CODE: 04/ SURM DATE: none/ ORIG REF: CO2

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900004-6

ACC NR: AT7005069

SOURCE CODE: UR/2546/66/000/154/0018/0022

AUTHORS: Gritsenko, M. V.; Tsepkanova, Ye. I. (deceased)

ORG: none

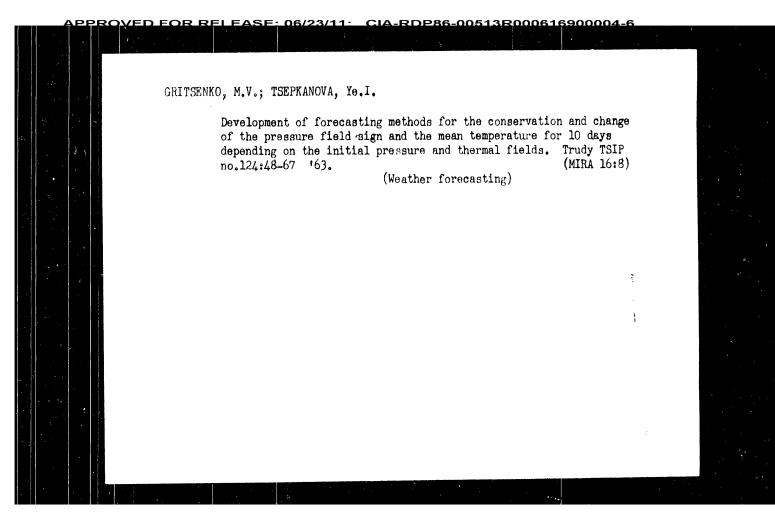
TITLE: Prognosis of an average monthly temperature in the lower half of the troposphere and at the earth's surface

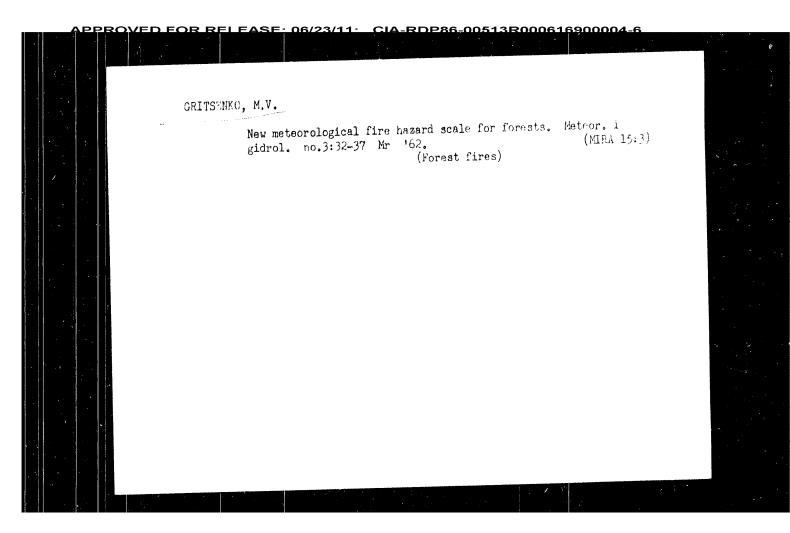
SOURCE: Moscow. Tsentral nyy institut prognozov. Trudy, no. 154, 1966. Vzaimodeystviye protsessov v stratosfere i troposfere i dolgosrochnyye prognozy pogody (Interaction of processes in the stratosphere and troposphere and long-range weather forecasting), 18-22

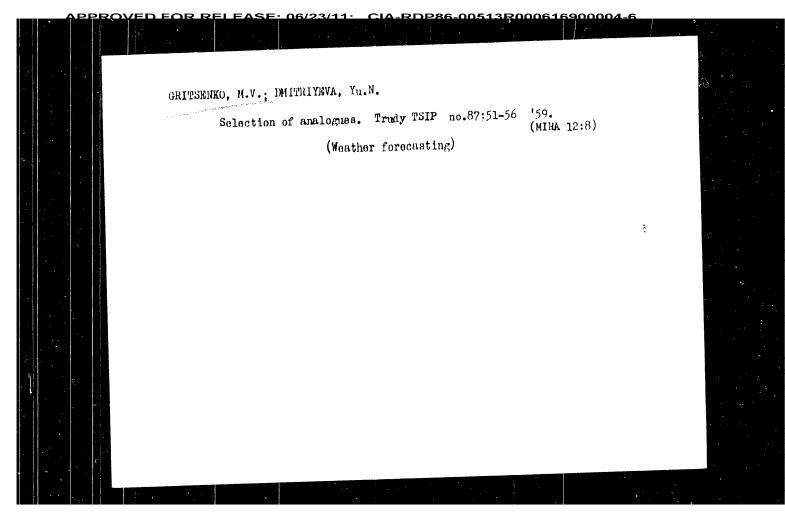
TOPIC TAGS: long range weather forecasting, atmospheric temperature, troposphere, atmospheric model

ABSTRACT: A method for forecasting an average monthly temperature for the lower half of the troposphere (layer from earth to 500 millibars) and at the earth's surface is established by expanding the previous work of the authors (M. V. Gritsenko and Ye. I. Established by expanding the previous work of the authors (M. V. Gritsenko and Ye. I. Tsepkanova. Metodika prognoza znaka baricheskoppolya i sredney temperatury na mesyats. Trudy TsIP, vyp. 124, 1963). This method is based on a study dealing with the horizontal transfer of air for the preceeding 25 days. The study involves a distance of 1600 km toward the cold and toward the warm air, thus giving a span of 3600 km of warm and cold air masses. A relationship between the temperature of the troposphere layer and that at the earth was established for 22 points of the European and 20 points of the Far

Card 1/2







Effect of Advection of Different Layers of the Atmosphere on Cyclone and Anticyclone Shifts

is summarized as follows: an important number of the cyclones and anticyclones shift in accordance with a definite advection in the upper layers. However, it is difficult to compile accurate stabilities on this fact, since there are only few qualified radioprobes in higher layers. There are 4 figures, 4 tables and 8 Soviet references.

Card 4/4

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900004-6

Effect of Advection of Different Layers of the Atmosphere on Cyclone and Anticyclone Shifts

50**v/**50**-**59**-**2**-**6/25

of at least 3° per 100 km was noted. The extent of pressure change in the cyclones may be determined by means of diagram 4 contained in the present article, and the direction of the cyclone shift by means of figure 2 (that is to say, in cases where a definite temperature boundary can be observed). In table 4 the more difficult cases of the analysis and forecasting of cyclone and anticyclone shifts are discussed. These are cases in which no temperature difference can be noted. The data obtained by the authors showed that heatand cold centers have a great influence upon the shifts of barometric formations in cases in which the centers are rather immobile and where no advection can be found. Studies of cases with rather immobile barometric formations showed that within the range of these barometric formations no well developed temperature discontinuity line is to be found in any of these cases, neither in the center nor at the periphery. At the same time, no advection occurs in the upper troposphere layers. Such barometric formations are most often found below heats or cold centers. The article

Card 3/4

Effect of Advection of Different Layers of the Atmosphere on Cyclone and Anticyclone Shifts

36V/50-59-2-6/25

in this article to determine the direction of chift of cyclones and anticyclones in dependence on the advection in different layers of the atmosphere. The evaluation of data obtained by measurements is given in the article. It is shown that with great differences in air temperature in the lower troposphere layer the temperature change in the cyclones or anticyclone system is determined mainly by the air temperature change in the lewer layer (1-4 km). This means that the shift of the warm air is accompanied by falling pressure in the cyclone area, since the denser air is replaced by less dense one. Behind the cyclone the pressure in record as a result of the denser air flowing in. In order to find a positive answer to the question of how to determine the direction of shift of cyclones in dependence upon the advection data obtained over the periods June-December 1955 as well as January-May and November-December 1956 were evaluated. In the case of shifts of cyclones and anticyclores in whose senters considerable temperature differences are to be found experience showed that these shifts occur along a line at which a temperature discontinuity

Card 2/4

SUV/50-59-2-6/25 3(7)AUTHORS: Kashin, K. I., Gritsenko, M. V. TITLE: Effect of Advection of Different Layers of the Atmosphere on Cyclone and Anticyclone Shifts (Vliyaniye advektsii razlichnykh sloyev atmosfery na peremeshcheniye tsiklonov i antitsiklonov) Meteorologiya i gidrologiya, 1959, Nr 2, pp 30 - 35 (USSR) PERIODICAL: It is shown that it is not necessary to use the concept of ABSTRACT: pressure transport in explaining the formation and shifting of cyclones. The air shift which causes the advective pressure change (due to temperature advection) can be calculated from the direction and velocity of the wind and on the basis of the temperature gradient. Likewise the chift of heat and cold centers can be calculated from the direction and velocity of the wind. However, it is very difficult in practice to determine this shift. The cyclones and anticyclones shift into heat- and cold centers (Ref 7), i.e. in those cases in which the pressure change is mainly due to dynam: factors. Since at present no method is known for Card 1/4the determination of these factors, the attempt is made

The Connection Between Air Temperature and Moisture Deficiency the moisture deficiency for continental and littoral stations. There are 1 figure, 3 tables, and 4 references, 2 of which are Soviet. 1. Meteorology 2. Humidity-Temperature factors 3. Humidity --Climatic factors

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30 58-5-5/20

The Connection Between Air Temperature and Moisture Deficiency

(table 1), the maximum deviations amount to 3-4 mb From the data of table 1 is to be seen that diagrams of the abovementioned type can actually be plotted for 29 points of the USSR (figure 1). The differences in the nature of the connection are explained by the fact that one and the same temperature is in individual months caused by different synoptical situations Diagrams for litteral stations show a different nature of connection when they are plotted for stations at different seas. The direction of sind and the temperature difference between the continent and the water are decisive factors here. In the littoral stations a lower value of moisture deficiency than in the continental stations corresponds to one and the same temperature. The diagram of the littoral stations may not be united for different oceans. The difference under review (table 2) is in individual months dependent on one or the other of synoptical processes above the continent and the littoral zone. For the characteristic of the danger of forest fires it would be expedient to plot detailed diagrams. For prognoses they could at most remain valid for 3 days. Table 3 shows the average values of

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PROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000616900004-6

AUTHORS:

Kashin, K.I. Gritsenko, M.V

50-58-5-5/20

TITLE:

The Connection Between Air Temperature and Moisture Deficiency (Svyaz) temperatury vozdakha s defitsitem

vlazhnosti)

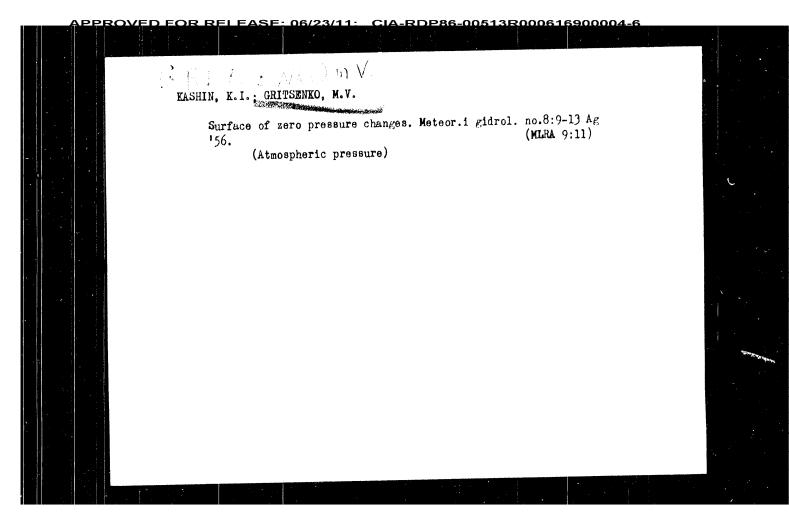
PERIODICAL:

Meteorologiya i Gidrologiya, 1958, Nr 5, pp 2-33 (USSR)

ABSTRACT:

This connection had to be determined during the elaboration of the forecasts of the danger of forest fires. A short survey of publications on this problem in other fields is given (references 1 -4). In order to determine in which manner the nature of this connection changes according to the time of year, diagrams for several points of the USSR and for every individual month were separately constituted. On the basis of those the authors came to the conclusion that the continental stations yield a more or less equal connection of the investigated elements within each month. In Syktyvkar, Moscow, Petrozavodsk, Minsk, Sverdlovsk, Omak and Krasnoyarsk the average deviation of the moisture deficiency corresponding to the temperatures of 10, 15 and 20°C (in May) and 20, 25 and 30°C (in August) only varies within the range of 1-2 mb

Card 1/3



AID P - HO

Subject : USSR/Meteorology

Card 1/1

Pub. 71-a - 28/35

Author

r Romanov, N. N.

Title

: Review of the article of K. I. Kashin and M. V. Gillian to

"On changes of pressure at the earth surface

Periodical : Met. 1. gidr., 6, 59-60, N/D 1955

Abstract

: This article appeared in the No. 5, 1954 Issue of 12.25periodical. The reviewer criticizes the article for careless and "foggy" deliberations on the movement of

air and turbulence.

Institution: None

Submitted : No date

APPROVED FOR RELEASE 08/23/11 CIA-RDP86-00513R0008189000

GRITSENKO, M. V. and KASHIN, K. I.

"Problem of Movement of Cyclones and Anticyclones". Meteorol. i gidrologiya, No 6, pp 3-7, 1954.

Out of 77 cyclones 75 were moving in a region where on the preceding day foci of heat were situated at the 500-mb surface. Anticyclones in 30 cases out of 45 were moving in the direction of the focus of cold. A cyclone that has appeared in the neighborhood of a focus of cold becomes slightly mobile and filled up; the same can be said about an anticyclone that has appeared in the neighborhood of warm air. (RZhGeol, No 8, 1955)

SO: Sum No 884, 9 Apr 1956